## (h) SYNTHES° Spine

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## 5 510(k) Summary

Name of Firm:	Counth on Curing
Name of rim:	Synthes Spine
	1302 Wrights Lane East
510(1) (2)	West Chester, PA 19380
510(k) Contact:	Jason Lipman
	Manager, Spine Regulatory Affairs
	Telephone: 610-719-5629 Facsimile: 610-719-5102
	Email: Lipman.jason@synthes.com
Date Prepared:	March 1, 2011
Trade Name:	Synthes VBB System
Classification:	21 CFR 888.3027 – Cement, Bone, Vertebroplasty
	Class II
	Orthopaedic and Rehabilitation Devices Panel
	Product Code: NDN, HRX
Predicate Devices:	CareFusion Avamax (K093463)
	Kyphon KyphX Xpander Inflatable Bone Tamp (K041454)
	Stryker iVAS (K093419)
	Cardinal Health Inflatable Bone Tamp (K090211)
	Boston Scientific Sterling Monorail PTA Balloon Dilatation Catheters
	(K053118, K080982)
	Synthes Click'X (K992739)
Device Description:	The VBB System consists of a Vertebral Body Balloon Catheter,
Device Description.	Inflation System, and Vertebral Augmentation Access Kit. The
	Vertebral Body Balloon Catheter is a bone tamp with an inflatable
	component (balloon) at the distal end. A stainless steel radiographic
	marker (ISO 5832-1) is located at the distal tip of the balloon. The
	balloon is inflated by the Inflation System within the vertebral body. The
	Vertebral Body Balloon System is intended to be used for the reduction
	of fractures and/or creation of a void in cancellous bone in the spine.
	This includes use during percutaneous vertebral augmentation. The
	system is to be used with cleared spinal Polymethylmethacrylate
	(PMMA) bone cements indicated for use during percutaneous vertebral
	augmentation procedures, such as kyphoplasty.
Intended Use /	The Vertebral Body Balloon System is intended to be used for the
Indications for Use:	reduction of fractures and/or creation of a void in cancellous bone in the
indications for Osc.	spine. This includes use during percutaneous vertebral augmentation.
	The system is to be used with cleared spinal Polymethylmethacrylate
	(PMMA) bone cements indicated for use during percutaneous vertebral
	augmentation procedures, such as kyphoplasty.
Comparison of the	The design features, material, and indications for use of the VBB
Comparison of the	System are substantially equivalent to the predicate devices identified.
technological characteristics of the	Additionally, the safety and effectiveness of this system is adequately
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device to the	supported by documentation within this premarket notification.
predicate device:	1 Mark and a state of the state
Performance Data	Mechanical and biomechanical testing was performed in order to
(Non-clinical and/or	provide data to support a substantial equivalence determination. These

## (a) SYNTHES\* Spine

Clinical)	tests were performed to characterize the properties and functionality of the VBB System, as well as to allow comparison with established acceptance criteria. Mechanical and biomechanical testing was performed to assess balloon pressure and volume limitations, burst characteristics, system usability, and ability of the device to be used for the reduction of fractures and/or creation of a void in cancellous bone. The conclusions drawn from testing demonstrate that the VBB System is
	as safe and effective as the predicate devices identified. Clinical data was not needed for this device.







Food and Drug Administration 10903 New Hampshire Avenue Document Control Room –WO66-G609 Silver Spring, MD 20993-0002

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Synthes Spine % Mr. Jason Lipman Manager, Spine Regulatory Affairs 1302 Wrights Lane East West Chester, Pennsylvania 19380

Re: K110604

Trade/Device Name: Synthes VBB System Regulation Number: 21 CFR 888.3027

Regulation Name: Polymethylmethacrylate (PMMA) bone cement

Regulatory Class: Class II Product Code: NDN, HRX Dated: December 07, 2011 Received: December 08, 2011

Dear Mr. Lipman:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you; however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act

or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <a href="http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm">http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm</a> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours,

for Mark N. Melkerson

Director

Division of Surgical, Orthopedic and Restorative Devices Office of Device Evaluation Center for Devices and Radiological Health

Enclosure



## 4 Indications for Use Statement

510(k) Number:

Device Name: Synthes VBB System

Indications for Use:

The Vertebral Body Balloon System is intended to be used for the reduction of fractures and/or creation of a void in cancellous bone in the spine. This includes use during percutaneous vertebral augmentation. The system is to be used with cleared spinal Polymethylmethacrylate (PMMA) bone cements indicated for use during percutaneous vertebral augmentation procedures, such as kyphoplasty.

Prescription Use X (21 CFR 801 Subpart D)

AND / OR

Over-the-Counter Use (21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Surgical, Orthopedic,

K 110604

and Restorative Devices

510(k) Number